## **Patent**

What is claimed is:

1. A method for selective routing of a multi-recipient communication from an origin domain to a destination domain of a communications network, said method comprising the steps of:

- (a) receiving, at an exit routing station of the origin domain, a datagram comprising content data intended for multi-recipient delivery in a destination domain;
- (b) modifying the datagram to render it suitable for routing from the origin domain to the destination domain; and
- (c) transmitting via the communications network the datagram modified in step(b) to an entry routing station of the destination domain, the entry routing station beingcapable of initiating multi-recipient delivery in the destination domain.
- 2. The method of claim 1, wherein step (b) comprises the steps of:
- (b1) stripping a header from the datagram, the header being suitable for routing within the origin domain; and
- (b2) applying a new header to the stripped datagram, the new header being suitable for routing from the origin domain to the destination domain.
- 20 3. The method of claim 1, wherein step (b) comprises the step of:
  - (b1) wrapping the datagram with a wrapper suitable for routing from the origin domain to the destination domain.

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- 4. The method of claim 1, wherein step (b) comprises the step of:
- (b1) modifying a header of the datagram to create a new header suitable for routing from the origin domain to the destination domain.
- 5 5. The method of claim 4, wherein step (b1) comprises the step of incrementing a TTL value specified in the new header.
  - 6. The method of claim 2, wherein steps (a) (c) are performed at said exit routing station.
  - 7. The method of claim 2, wherein said new header of step (b2) comprises an HTTP or RMI header.
  - 8. The method of claim 1, further comprising the step of:
  - (d) said exit routing station listening on a multicast address; wherein said datagram is received in step (a) via said multicast address.
  - 9. The method of claim 1, further comprising the steps of:
  - (d) receiving at an entry routing station of the destination domain, the modified datagram transmitted by the exit routing station of the origin domain;
  - (e) applying a new header to the content data to form a reconstructed datagram, the new header being suitable for multi-recipient delivery in the destination domain; and

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- (f) initiating multi-recipient delivery of the reconstructed datagram in the destination domain.
- 10. The method of claim 1, wherein step (b) comprises the steps of:
- (b1) selectively identifying from a database information for routing to the intended entry routing station; and
- (b2) modifying the datagram to include information for routing to the intended entry routing station.
- 11. The method of claim 1, wherein step (c) comprises the steps of:
- (c1) identifying from a database information for routing to a plurality of entry routing stations;
- (c2) using the information to transmit to each of the plurality of entry routing stations.
- 12. A method for selective routing of a multi-recipient communication from an origin domain to a destination domain of a communications network, said method comprising the steps of:
- (a) receiving at an entry routing station of the destination domain, a datagram configured for routing from the origin domain to the destination domain, the datagram comprising content data intended for multi-recipient delivery in the destination domain;
- (b) modifying the datagram to form a reconstructed datagram, the reconstructed datagram being suitable for multi-recipient routing in the destination domain; and

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- (c) initiating multi-recipient delivery of the reconstructed datagram in the destination domain.
- 13. The method of claim 12, wherein step (b) comprises the step of:
  - (b1) incrementing a TTL value specified in the datagram.
- 14. The method of claim 12, wherein step (b) comprises the step of:
- (b1) retrieving information indicating parameters for multi-recipient delivery in the destination domain.
- 15. The method of claim 14, wherein the information retrieved in step (b1) comprises a multicast address for the destination domain, and wherein step (b) comprises modifying the datagram to specify said multicast address.
- 16. The method of claim 14, wherein the information retrieved in step (b1) comprises a port number for delivery in the destination domain, and wherein step (b) comprises modifying the datagram to specify said port number.
- 17. The method of claim 12, wherein step (b) comprises the steps of:
  - (b1) removing a wrapper applied to the datagram in the origin domain; and
- (b2) modifying a header of the datagram suitable for routing in the origin domain to create a header suitable for routing in the destination domain.

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- 18. The method of claim 17, wherein the wrapper removed in step (b1) comprises an HTTP or RMI header.
- 19. The method of claim 12, wherein step (b) comprises the step of:
- (b1) modifying a header of the datagram suitable for routing from the origin domain to the destination domain to create a header suitable for routing in the destination domain.
- 20. The method of claim 19, wherein said header suitable for routing in the destination domain comprises a header suitable for multicast transmission within the destination domain.
- 21. An exit routing station for selective routing of a multi-recipient communication to a destination domain, said exit routing station comprising:
  - a microprocessor;
  - a memory operatively connected to said microprocessor;
- a telecommunications device operatively connected to said microprocessor and capable of communicating via a communications network;

first instructions stored in said memory and executable by said microprocessor for receiving a datagram comprising content data intended for multi-recipient delivery in a destination domain;

second instructions stored in said memory and executable by said microprocessor for modifying the datagram to render it suitable for routing from the origin domain to the destination domain; and

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third instructions stored in said memory and executable by said microprocessor for transmitting via the communications network the modified datagram to an entry routing station of the destination domain, the entry routing station being capable of initiating multi-recipient delivery in the destination domain.

22. The exit routing station of claim 21, further comprising:

fourth instructions stored in the memory and executable by said microprocessor for retrieving information indicating parameters for delivery to the destination domain.

- 23. An entry routing station for selective routing of a multi-recipient communication received from an origin domain, said entry routing station comprising:
  - a microprocessor;
  - a memory operatively connected to said microprocessor;
- a telecommunications device operatively connected to said microprocessor and capable of communicating via a communications network;

first instructions stored in said memory and executable by said microprocessor for receiving a datagram configured for routing from the origin domain to the destination domain, the datagram comprising content data intended for multi-recipient delivery in the destination domain;

second instructions stored in said memory and executable by said microprocessor for modifying the datagram to form a reconstructed datagram, the reconstructed datagram being suitable for multi-recipient routing in the destination domain; and

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third instructions stored in said memory and executable by said microprocessor for initiating multi-recipient delivery of the reconstructed datagram in the destination domain.

24. The entry routing station of claim 23, further comprising:

fourth instructions stored in said memory and executable by said microprocessor for retrieving information indicating parameters for multi-recipient delivery in the destination domain.

- 25. A method for selective routing of a multicast communication from an origin domain to a destination domain of a communications network, said method comprising the steps of:
- (a) receiving at an entry routing station of the destination domain, a datagram configured for multicast routing from the origin domain to the destination domain, the datagram comprising content data intended for multi-recipient delivery in the destination domain;
- (b) retrieving information stored by the entry routing station, said information indicating parameters for multi-recipient delivery in the destination domain;
- (c) modifying the datagram to form a reconstructed datagram, the reconstructed datagram including information retrieved in step (b); and
- (d) initiating multi-recipient delivery of the reconstructed datagram in the destination domain.